# Quality Improvement Projects for Diabetes Care and Education



Elisabeth Mann, RN, CDE, CPT
Quality Improvement Coordinators
Montana Diabetes Project
Montana Department of Public Health and Human Services

#### Overview

- Why Quality Improvement
- What QI Projects are Available
- 2008 focus projects and preliminary results
- 5 year plan Program Objectives



# **MDP QI Program Goal**

 To promote the prevention of complications, disabilities and the burden associated with diabetes.

# Why Conduct QI Projects

- Patient Care
  - Implementation of projects that can provide patients the opportunity to improve health.
- 24 million Americans have DM 36,000 Montanan's have Type 2 DM



# Why Conduct QI Projects

- Reduce Diabetes Complications
  - Leading cause of adult blindness \*
  - Leading cause of end-stage renal disease \*
  - Leading cause of non-traumatic lower limb amputation \*
  - 2 to 4 times risk of developing cardiovascular disease \*

\* ADA - In the News 8-9-2002

# Why Conduct QI Projects

- Reduce the cost of healthcare due to diabetes and its complications.
- Estimates of the costs in 2008 given by ADA \*
   Total costs: \$218 billion (direct and indirect).
  - \$22.9 billion est. spent on direct medical costs related to diabetes complication in 2006



\* ADA Diabetes Care March 2008

### What QI Projects are Available?

- · ABC Standards of Care
  - Care Profiles, ABC letters, Trending Graphs
    - A1c < 7.0 mg/dL
    - LDL < 100 mg/dL
    - Blood Pressure < 130/80 mmHg

## What QI Projects are Available

- Lipid and Hypertension Studies
- Foot Care
- Tobacco Cessation
- Medication Adherence
- Dilated Eye Exam, documentation
- Flu and Pneumo Vaccinations
- Develop your own

# QI Project Focus for 2008

- ABC Standards
  - ABC letters
  - Care Profiles
- Lipid and Hypertension Studies
- Foot Exams
- Prevention
  - Flu and Pneumonia Vaccinations
  - Eye Exams

| • |  |  |  |
|---|--|--|--|
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
|   |  |  |  |
|   |  |  |  |
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
| • |  |  |  |
|   |  |  |  |

# ABC Projects - 2008

- ABC Letters: 6 sites 1143 letters
- Care Profiles: 7 sites 485 Brochures
- Lipid/Hypertension Studies: 9 CHC, 3
   Urban Indian Centers, 2 other PCP for > 1100 patients.
  - Ongoing project w/ CV program to improve BP and lipid control.

| Kidney Health  | Eye Exams  |   |
|--|--|---|
| et: Little or no urine protein loss<br>o called "microalbumin")  | Target: Dilated eye exam yearly  | YOUR  |
| h blood sugar and high blood pressure can<br>age kidness and decrease their ability to   | High blood sugar over a long period of time can<br>result in eye vessel damage. This damage can<br>cause biledness if not treated.   | PERSONAL  |
| r waste products from your body.   |  | DIABETES CARE   |
| gs your doctor may do:<br>test your urine for small amounts of protein<br>("microalbumin")   | Things your doctor may do:  ecocurage you to get a dilated eye exam yearly   | PROFILE   |
| prescribe medications to lower your blood<br>pressure  |  | This Profile includes your most recent<br>lab tests and exams.  |
|  | Health Promotion   | Our goal is to provide you with information you need to live well with  |
| Foot Care  | Flushot: Yearly. The flushot will not cause you to get the flu!  | diabetes. Your health care team<br>wants you to "know your numbers"   |
| get: Comprehensive foot exam yearly  | Pneumonia shot: At least once in your lifetime   | and to take charge of your health.  |
| h blood sugar, high blood pressure, and<br>oking can cause circulation problems,<br>utiling in pain, sores, and possibly<br>putation.<br>ngs your doctor may do: | Dental Exam: Cleaning by a dentist or hygienist every six menths. For good dental care remember to:  - brush your teeth at least twice a day - fless your teeth at that ence a day | If you have any questions about labs,<br>exams, or have other general<br>questions regarding your diabetes<br>management, bring them to your next<br>appointment. |
| examine your feet for feeling, seres or<br>uteers  |  | Any Clinic<br>406:555-5555  |
| encourage you to examine your feet every<br>day  |  | Name of Diabetes Coordinator<br>Diabetes Education Program Coordinator<br>406-550-5555  |
|  | "Know your<br>numbers"   | Clinic<br>Logo  |
|  | numbers  | Logo  |

| Division Dugar Countries   |  | 20000              |                  |  |  |
|--|--|--------------------|------------------|--|--|
| rget: Alc level 7% or less   | Target: 130/80 or less   |                    |                  | Target: LDL cholesterel level 100 or less  |  |
| smoglubin A.1 e ("A-en-C") lest measures your<br>eragin blood signer dering the last 1 months.<br>Integration of the signer derived the signer of the<br>important point Act levels every 2-6 months<br>your number is above 7%.<br>eretry you to additive edicaction program<br>is also important to check your blood sugars<br>guistry at home with a blood sign measured<br>guistry at home with a blood sign measured<br>signer point point of the signer of the<br>cod sugar testing, helps you to understand how<br>do, activity, and weight loss impact your blood<br>gas levels. | Blood pressures the force of your blood an R transit through your blood vessels. When the pressures its body. R changes there reversels. This can lead to a hour attack, stroke, Miney failure, or you complications.  Thing your doctor may necessary you to do: meaning your blood pressure daily the strong of the property of the second your doctor who will be proved to the property of the second your doctor who will be proved to the property of the second your doctor who will be proved to the second your activity as at least 20 minutes per day (most pressure your doctor as it provided to become your activity to at least 20 minutes per day (most pressure your pressure).  DIABETES CARE PROFILE:  JOHN DOE  *NOW YOUR NUMBERS* |                    |                  | Jagett: Dic cholesteral reset 100 or less DC (Lind) Calabetteral ricks in your blood vessels and sloves blood flow.  If this secure in your: You may have: brails stroke hard hard hard trick hard hard hard trick hard hard hard trick hard hard hard trick hard ween hard ween hard ween hard ween hard ween hard process of the same and hard process of the same hard ween hard |  |
|  | Date   | Rendt              | Goal Target*     | Should be done: *  |  |
| Ale (3 month average)  | 1/5/04   | 6.8                | Less than 7%     | Two to four times per year   |  |
| Elloyd Pressure  | 2/29/2005  | 120 WI             | Less than 130/90 | Each visit   |  |
| LDL Cholesterol ("bud")  | 2/15/2005  | 150                | Less than 100    | Yearly   |  |
| Microalbumin (urine protein)   | 02/28/2005   | Negative           | Negative         | Yearly   |  |
| Comprehensive Foot Essen   | 2/15/2015  | Monthees           | At least yearly  | Yearly   |  |
| Dilated Bye Roam   | 304005   | Mild Sistinopulty: | At least yearly  | Yearly   |  |
| Fla Shot   | 3/15/2005  | Received           | Every year       | Yearly   |  |
| Pheumonia Shot   | 215/2005   | Received           | At least once    | Once before 65 and after 65  |  |
|  |  |                    |                  |  |  |

## ABC Projects - 2008

- Early results show annual A1c as static from the baseline with the median at 76%
- Baseline for A1c < 7% to 08 median only slight rise 51% to 56%
- Meeting target LDL-C ≤ 100 showed an 8% increase from baseline

#### **Foot Exams**

- Conducted Foot exam classes 13 sites
  - 101 staff trained
  - Began July 08
    - Too soon to see conclusive results, however individual stats for earliest class sites showing improvement.



### Flu and Pneumo - 2008

- Sending of flu/pneumo letters
- Aware of 7 sites that sent letters this past fall
  - 2250 pts.
  - Those receiving pneumonia vaccinations increased 19% from baseline to present



# Dilated Eye Exams - 2008

- Sites General campaign with educational materials, sample reporting forms, sample patient letters, and a list of Optometrists and Ophthalmologists in their service area
- Eye Care Providers Reporting forms, and information on the importance of sharing results with the patient's primary care giver
- ❖Patients' receiving retinal eye exams increased 11% from baseline to present

### Plan - Do - Evaluate

- Tools MDP utilizes to identify possible areas in need of improvement by site.
  - Quarterly Summaries and graphs
  - QIR trend reports
  - Stoplight report





#### Plan - Do - Evaluate

- Plan
  - Choose a project after looking at the data
  - Identify a coordinator
  - Identify the patients who will be the target of the project
  - Ensure resources are available and the team is on board.



#### Plan - Do - Evaluate

- Do
  - Obtain Tips and Tricks from MDP QI Coordinator
  - MDP is available to assist with the QI project in various ways (Varies with project)
  - MDP has materials available for use in projects (Varies with project)



# Plan – Do - Evaluate

- Evaluate
  - Run follow up reports in 3-6 months
    - (Quarterly Summaries, Advance Search for specific values, )
  - Compare data, have numbers improved?
    - If yes, should the project continue to raise results higher?
    - If no, evaluate why, is there something else to do/target etc?

## **Program Objectives**

- By 2014 ↑ the % of patients with diabetes receiving care at MDP QI Program clinics who meet target goals of:
  - -< 7% A1c (52% to 67%)
  - Blood pressure < 130/80 mmHg (42% to 57%)
  - LDL-C < 100 mg/dL (58% to 73%)



### Overview

- Why Quality Improvement
- What QI Projects are Available
- 2008 focus projects and preliminary results
- 5 year plan Program Objectives





| <u> </u> |  |
|----------|--|
|          |  |
|          |  |
|          |  |
|          |  |
|          |  |
|          |  |
|          |  |
|          |  |